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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,063	09/13/2002	Karin Spalink	U01-0043(15)	2602
24239	7590	08/01/2005	EXAMINER	
MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			ABEL JALIL, NEVEEN	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 08/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,063

Applicant(s)

SPALINK ET AL

Examiner

Neveen Abel-Jalil

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Remarks

1. The amendment filed on May 31, 2005 has been received and entered. Claim 1-14, and 16-27 are now pending.

### *Claim Objections*

2. Claim 17 is objected to because of the following informalities:

In claim 17, line 2, the semicolon at the end of the sentence should be replaced by a period.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-19 are rejected under 35 U.S.C. 101 because the claims are directed to a non-statutory subject matter, specifically, directed towards an data structure.

The Supreme Court has repeatedly held that abstractions are not patentable. "An idea of itself is not patentable". "Rubber Tip Pencil Co. V. Howard", 20 Wall.498, 07. Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work "Gottschalk v. Benson", 175 USPQ 673, 675 (S Ct 1972). It is a common place that laws of nature, physical phenomena, and abstract ideas are not patentable subject matter "Parker v. Flook", 197 USPQ 193, 201 (S Ct 1978).

Database Structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. Applicant's claims are not within any of the statutory classes. "A database structure" should define structural and functional interrelationships between data structures or functional parts and a computer system which permit the data functions to be realized, and is statutory.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, line 3, the recitation of "receiving a first digit" is vague and indefinite. It is unclear to the Examiner how after receiving at least one digit as stated in line 2, then proceeding to step two of continuation to receive "a first digit". Its either that the first digit was received in the initial step or the second step but not both. Claims 2-12 are dependent on claim 1 and therefore carry the same deficiency.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-8, 11, 13-14, and 16-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Simon et al. (U.S. Patent No. 6,442,270 B1).

As to claim 1, Simon et al. discloses a method of searching-by-number, comprising:  
receiving at least one digit or a sequence of digits and wildcards (See Simon et al. figure 3, 302, “Enter Digit”); and  
continuing to receive wildcards until receiving a fist digit (See Simon et al. figure 1, shows all number that match the digit plus the wildcards);  
searching any numbers stored in a device to form a match list including any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Simon et al. column 2, lines 45-53).

Simon et al. discloses the claimed invention except for explicitly stating wildcards. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide wherein the searching by number displaces any other combination of number that is available in the storage as being a wildcard search in order to provide precise and efficient searching.

As to claim 2, Simon et al. discloses comprising displaying the match list (See Simon et al. figure 2, 210, shows matched list).

As to claim 3, Simon et al. discloses comprising ending the search in response to one of:  
no stored numbers matching the at least one digit or the sequence of digits or wildcards;  
a displayed number being selected (See Simon et al. figure 3, 306, "Match Shown");  
a predetermined time period elapsing without an action by a user;  
a predetermined number of digits or digits and wildcards being entered; and  
a user aborting the search.

As to claim 4, Simon et al. discloses comprising performing an intelligent pre-match before displaying any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Simon et al. figure 1, shows all number that match the digit plus the wildcards).

As to claim 5, Simon et al. discloses comprising displaying the match list in a predetermined order (See Simon et al. column 1, 16-25, prior art, also see Simon et al. column 1, lines 41-46).

As to claim 6, Simon et al. discloses comprising displaying the match list in an order corresponding to a position of the at least one digit or sequence of digits and wild cards in any

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stored numbers (See Simon et al. column 2, lines 35-44).

As to claim 7, Simon et al. discloses comprising displaying the match list in the order that the at least one digit or sequence of digits and wild cards are positioned from left to right in any stored numbers (See Simon et al. column 1, lines 58-67).

As to claim 8, Simon et al. discloses comprising displaying only one stored number of a group of stored numbers in the match list that are variations of a same phone number (See Simon et al. column 2, lines 22-34).

As to claim 11, Simon et al. discloses comprising entering the at least one digit or sequence of digits and wild cards by voice recognition (See Simon et al. column 2, lines 16-21).

As to claim 13, Simon et al. discloses a method of searching-by-number, comprising:  
receiving a first entry (See Simon et al. figure 3, 302, "Enter Digit");  
receiving an additional entry, if the first entry is a wildcard (See Simon et al. column 2, lines 45-54);

repeating receiving an additional entry until a digit is received (See Simon et al. figure 1, shows all number that match the digit plus the wildcards);

searching the match list for numbers matching a sequence of entered digits and wildcards in response to receiving each additional entry that is a digit (See Simon et al. column 1, lines 35-46).

Simon et al. discloses the claimed invention except for explicitly stating wildcards. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide wherein the searching by number displaces any other combination of number that is available in the storage as being a wildcard search in order to provide precise and efficient searching.

As to claim 14, Simon et al. discloses further comprising displaying the match list (See Simon et al. column 1, lines 41-46, also see Simon et al. figure 1).

As to claim 16, Simon et al. discloses comprising displaying a new match list including any numbers matching the sequence of entered digits and wildcards from a previous match list (See Simon et al. column 1, lines 61-67, also see Simon et al. column 2, lines 45-53).

As to claim 17, Simon et al. discloses comprising receiving additional entries until a predetermined number of digits and wildcards are entered (See Simon et al. column 1, lines 61-67, also see Simon et al. column 2, lines 45-53).

As to claim 18, Simon et al. discloses comprising ending the method in response to the occurrence of one of:

receiving a predetermined signal;

failing to match any numbers in the match list; and



receiving a predetermined number of digits and wildcards (See Simon et al. column 1, lines 61-67).

As to claim 19, Simon et al. discloses wherein receiving the predetermined signal comprises one of:

selecting a number from the match list; and

receiving a clear or end signal (See Simon et al. column 1, lines 61-67).

As to claim 20, Simon et al. discloses a device including a search-by-number feature, comprising:

a processor (See Simon et al. column 2, lines 24-26, wherein “processor” reads on “PDA”) to search any stored numbers in response to receiving the at least one digit or the sequence of digits and wildcards and to form a match list in response to any stored numbers matching the at least one digit or sequence of digits and wildcards (See Simon et al. column 2, lines 28-53);

means for receiving an additional entry (See Simon et al. column 2, lines 45-53);

means for repeating receiving an additional entry until a digit is received (See Simon et al. figure 1, shows all number that match the digit plus the wildcards);

means for searching the match list for numbers matching a sequence of entered digits and wildcards (See Simon et al. column 1, lines 35-46).

Simon et al. discloses the claimed invention except for explicitly stating wildcards. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to provide wherein the searching by number displaces any other combination of number that is available in the storage as being a wildcard search in order to provide precise and efficient searching.

As to claim 21, Simon et al. discloses comprising a display to display the match list (See Simon et al. column 1, lines 41-46, also see Simon et al. figure 1).

As to claim 22, Simon et al. discloses comprising an intelligent pre-match feature to display only one stored number of a group of stored numbers in the match list that are variations of a same number (See Simon et al. column 3, lines 16-26).

As to claim 23, Simon et al. discloses comprising a feature to end the search by the processor in response to one of:

- no stored numbers matching the at least one digit or the sequence of digits or wildcards;
- a displayed number being selected (See Simon et al. column 1, lines 18-25, prior art);
- a predetermined time period elapsing after displaying any stored numbers matching the at least one digit or the sequence of digits and wildcards without an input from a user;
- a predetermined number of digits or digits and wildcards being entered; and
- a user aborting the search.

As to claim 24, Simon et al. discloses wherein the at least one data storage device comprises at least one of:

a call list, a missed call list and a phonebook (See Simon et al. column 1, lines 18-25, prior art).

As to claim 25, Simon et al. discloses a computer-readable medium having computer-executable instructions for performing a method, comprising:

receiving at least one digit or a sequence of digits and wildcards (See Simon et al. figure 3, 302, "Enter Digit"); and

receiving any additional entries (See Simon et al. column 2, lines 45-53);

repeating receiving any additional entries until a digit is received (See Simon et al. figure 1, shows all number that match the digit plus the wildcards);

searching any numbers stored in a device to form a match list including any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Simon et al. column 1, lines 35-46);

searching the match list for numbers matching a sequence of entered digits and wildcards (See Simon et al. column 1, lines 35-46).

Simon et al. discloses the claimed invention except for explicitly stating wildcards. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide wherein the searching by number displaces any other combination of number that is available in the storage as being a wildcard search in order to provide precise and efficient searching.

As to claim 26, Simon et al. discloses comprising displaying the match list (See Simon et al. column 1, lines 41-46, also see Simon et al. figure 1).

As to claim 27, Simon et al. discloses comprising performing an intelligent pre-match before displaying any stored numbers matching the at least one digit or the sequence of digits and wildcards (See Simon et al. column 3, lines 16-26).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et al. (U.S. Patent No. 6,442,270 B1) in view of Amro et al. (U.S. Patent No. 6,542,591 B1).

As to claim 9, Simon et al. does not teach wherein the searching is accomplished at least in part by searching a call list, a missed call list and a phonebook.

Amro et al. teaches wherein the searching is accomplished at least in part by searching a call list, a missed call list and a phonebook (See Amro et al. column 8, lines 1-28, also see Amro et al. figure 5a, 5b).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. to include wherein the searching is accomplished at least in part by searching a call list, a missed call list and a phonebook.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. by the teaching of Amro et al. to include wherein the searching is accomplished at least in part by searching a call list, a missed call list and a phonebook because it provides for ease of use and flexibility in searching more than one list (See Amro et al. column 1, lines 52-55).

As to claim 10, Simon et al. does not teach wherein the call list, the missed call list and the phonebook are searched in a predetermined order.

Amro et al. teaches wherein the call list, the missed call list and the phonebook are searched in a predetermined order (See Amro et al. column 8, lines 44-59, also see Amro et al. figure 5a, 5b).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. to include wherein the call list, the missed call list and the phonebook are searched in a predetermined order.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. by the teaching of Amro et al. to include wherein the call list, the missed call list and the phonebook are searched in a predetermined order because it provides for ease of use and flexibility in searching more than one list (See Amro et al. column 1, lines 52-55).

As to claim 12, Simon et al. does not teach comprising selecting a search-by-number feature from a menu by voice activation.

Amro et al. teaches comprising selecting a search-by-number feature from a menu by voice activation (See Amro et al. column 8, lines 10-13, also see Amro et al. column 5, lines 15-27, wherein “feature from a menu” reads on “handset”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. to include comprising selecting a search-by-number feature from a menu by voice activation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Simon et al. by the teaching of Amro et al. to include comprising selecting a search-by-number feature from a menu by voice activation because it provides for ease of use and flexibility in methods of searching (See Amro et al. column 1, lines 52-55).

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1-14, and 16-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5: 30PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil  
July 27, 2005

  
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